



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/574,265	03/31/2006	Mitsuteru Mutsuda	2224-0255PUS1	9018

2292 7590 03/09/2010
BIRCH STEWART KOLASCH & BIRCH
PO BOX 747
FALLS CHURCH, VA 22040-0747

EXAMINER

FREEMAN, JOHN D

ART UNIT	PAPER NUMBER
----------	--------------

1794

NOTIFICATION DATE	DELIVERY MODE
-------------------	---------------

03/09/2010

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

mailroom@bskb.com

Office Action Summary	Application No. 10/574,265	Applicant(s) MUTSUDA ET AL.	
	Examiner John Freeman	Art Unit 1794	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 February 2010.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-14, 19, 20 and 22-24 is/are pending in the application.
- 4a) Of the above claim(s) 22-24 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-14, 19 and 20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. Claim 20 is rejected under 35 U.S.C. 102(b) as being anticipated by Oenbrink et al. (US 6,538,073).
2. Oenbrink discloses polyamide graft copolymers that can be extruded or used as hot-melt adhesive (col 4 ln 36-39). The copolymer contains a polyamine (col 1 ln 60-66). Oenbrink's polymer contains a non-urethane polyamide (col 2 ln 1-3). The resin has an amino group concentration of 100-2500 mmol/kg, and more preferably 250-1300 mmol/kg (col 3 ln 56-59).
3. While there is no disclosure that the polymer is used "for directly joining to a thermoplastic polyurethane resin" as presently claimed, applicants attention is drawn to MPEP 2111.02 which states that "if the body of a claim fully and intrinsically sets forth all the limitations of the claimed invention, and the preamble merely states, for example, the purpose or intended use of the invention, rather than any distinct definition of any of the claimed invention's limitations, then the preamble is not considered a limitation and is of no significance to claim construction". Further, MPEP 2111.02 states that statements in the preamble reciting the purpose or intended use of the claimed invention must be evaluated to determine whether the purpose or intended use results in a structural difference between the claimed invention and the prior art. Only if such structural difference exists, does the recitation serve to limit the claim. If the prior art structure is capable of performing the intended use, then it meets the claim.
4. It is the examiner's position that the preamble does not state any distinct definition of any of the claimed invention's limitations and further that the purpose or intended use, i.e. the use of directly joining to a polyurethane, recited in the present claim does not result in a structural difference between the presently claimed invention and the prior art and further that the prior art structure which is a composite identical to that set forth in the present claims is capable of performing the recited purpose or intended use.

Art Unit: 1794

Claim Rejections - 35 USC § 103

5. Claims 1-10, 12, 14, and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Matsumoto et al. (US 4,410,595) in view of Oenbrink et al. (US 6,538,073).

6. Regarding claims 1 and 9:

7. Matsumoto discloses a laminate comprising one layer which comprises a thermoplastic polyurethane elastomer, and a layer of another material (col 2 ln 9-39). The other material can be a thermoplastic polyamide (col 8 ln 47-56). Matsumoto uses polyether-diols to form the polyurethane, and therefore the polyurethane contains polyether segments (col 2 ln 54-57). The composites exhibit enhanced processability, and good soft and flexible characteristics (col 1 ln 10-12). Matsumoto teaches the composites can be shaped by molding processes (col 6 ln 66-col 7 ln 4).

8. Matsumoto is silent with regard to a polyamide having an amino group containing compound.

9. Oenbrink discloses polyamide graft copolymers that can be extruded or used as hot-melt adhesive (col 4 ln 36-39). The copolymer contains a polyamine (col 1 ln 60-66).

10. At the time of the invention, it would have been obvious to one of ordinary skill in the art to use Oenbrink's polyamide containing a polyamine to ensure good adhesion to polyurethane elastomer substrate taught by Matsumoto.

11. Regarding claims 2-3, 8, 10:

12. Oenbrink's polymer contains a non-urethane polyamide (col 2 ln 1-3). The resin has an amino group concentration of 100-2500 mmol/kg, and more preferably 250-1300 mmol/kg (col 5 ln 34).

13. Regarding claims 4-6:

14. Although the claims limit the identity of the alicyclic polyamide, the claims do not require the presence of the alicyclic polyamide.

15. Regarding claim 7:

16. Oenbrink teaches the use of alicyclic monomers (col 3 ln 48). At the time of the invention, it would have been obvious to one of ordinary skill in the art to vary the amount of alicyclic monomers, including over the presently claimed very broad range, to control the amount of amino groups present.

17. Regarding claim 12:

Art Unit: 1794

18. Oenbrink uses 0.5-25% by weight of the polyamine (col 1 ln 62).

19. Regarding claim 14:

20. Matsumoto uses polyether urethane elastomers (col 2 ln 54-63).

21. Regarding claim 19:

22. Matsumoto discloses the composites taught therein can “be shaped or processed into various articles by conventional procedures” (col 6 ln 66+). While there is no disclosure that the laminate of Matsumoto is used in a shoe or roll member as presently claimed, applicants attention is drawn to MPEP 2111.02 which states that “if the body of a claim fully and intrinsically sets forth all the limitations of the claimed invention, and the preamble merely states, for example, the purpose or intended use of the invention, rather than any distinct definition of any of the claimed invention’s limitations, then the preamble is not considered a limitation and is of no significance to claim construction”. Further, MPEP 2111.02 states that statements in the preamble reciting the purpose or intended use of the claimed invention must be evaluated to determine whether the purpose or intended use results in a structural difference between the claimed invention and the prior art. Only if such structural difference exists, does the recitation serve to limit the claim. If the prior art structure is capable of performing the intended use, then it meets the claim.

23. It is the examiner’s position that the preamble does not state any distinct definition of any of the claimed invention’s limitations and further that the purpose or intended use, i.e. a composite used in a shoe or roll member, recited in the present claims does not result in a structural difference between the presently claimed invention and the prior art and further that the prior art structure which is a composite identical to that set forth in the present claims is capable of performing the recited purpose or intended use.

Art Unit: 1794

24. Claims 1-14 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Matsumoto et al. (US 4,410,595) in view of Goetz et al. (US 5,254,620) and Oenbrink et al. (US 6,538,073).

25. Regarding claims 1, 9, and 13:

26. Matsumoto discloses a laminate comprising one layer which comprises a thermoplastic polyurethane elastomer, and a layer of another material (col 2 ln 9-39). The other material can be a thermoplastic polyester (col 8 ln 15-26) or polyamide (col 8 ln 47-56). Matsumoto uses polyether-diols to form the polyurethane, and therefore the polyurethane contains polyether segments (col 2 ln 54-57). The composites exhibit enhanced processability, and good soft and flexible characteristics (col 1 ln 10-12).

27. Matsumoto is silent with regard to a polyester mixed with a polyamide oligomer.

28. Goetz discloses a molding composition comprising a polyester and polyamide prepolymer (oligomer) (col 1 ln 1-15). The compositions have good flowability and flame resistance (col 9 ln 56+).

29. Matsumoto and Goetz are silent with regard to a polyamide containing polyamine.

30. Oenbrink discloses polyamide graft copolymers that can be extruded or used as hot-melt adhesive (col 4 ln 36-39). The copolymer contains a polyamine (col 1 ln 60-66).

31. At the time of the invention, it would have been obvious to one of ordinary skill in the art to use Goetz's teaching of a blend of polyester and polyamide oligomer with Oenbrink's teaching of a polyamine-containing polyamide to arrive at a covering for Matsumoto's polyurethane substrate, wherein the covering would have improved flowability and adhesion to the substrate.

32. Regarding claims 2-3, 8, 10:

33. Oenbrink's polymer contains a non-urethane polyamide (col 2 ln 1-3). The resin has an amino group concentration of 100-2500 mmol/kg, and more preferably 250-1300 mmol/kg (col 3 ln 56+).

34. Regarding claims 4-6:

35. Although the claims limit the identity of the alicyclic polyamide, the claims do not require the presence of the alicyclic polyamide.

36. Regarding claim 7:

Art Unit: 1794

37. Oenbrink teaches the use of alicyclic monomers (col 3 ln 48). At the time of the invention, it would have been obvious to one of ordinary skill in the art to vary the amount of alicyclic monomers, including over the presently claimed very broad range, to control the amount of amino groups present.

38. Regarding claim 11:

39. As noted Oenbrink's polymer has an amino group concentration of 250-1300 mmol/kg. Goetz teaches the polyamide prepolymers have viscosity numbers of 40-80 ml/g (col 7 ln 60+).

40. Although the references are silent with regard to the molecular weight of the polyamide prepolymer, it was well known in the art that molecular weight affects the viscosity of the prepolymer, and therefore its usability. At the time of the invention, it would have been obvious to one of ordinary skill in the art to vary the molecular weight, including over the presently claimed broad range of weights, to arrive at a polyamide prepolymer having desirable flow characteristics.

41. Regarding claim 12:

42. Oenbrink uses 0.5-25% by weight of the polyamine (col 1 ln 62).

43. Regarding claim 14:

44. Matsumoto uses polyether urethane elastomers (col 2 ln 54-63).

45. Regarding claim 19:

46. Matsumoto discloses the composites taught therein can "be shaped or processed into various articles by conventional procedures (col 6 ln 66+). While there is no disclosure that the laminate of Matsumoto is used in a shoe or roll member as presently claimed, applicants attention is drawn to MPEP 2111.02 which states that "if the body of a claim fully and intrinsically sets forth all the limitations of the claimed invention, and the preamble merely states, for example, the purpose or intended use of the invention, rather than any distinct definition of any of the claimed invention's limitations, then the preamble is not considered a limitation and is of no significance to claim construction". Further, MPEP 2111.02 states that statements in the preamble reciting the purpose or intended use of the claimed invention must be evaluated to determine whether the purpose or intended use results in a structural difference between the claimed invention and the prior art. Only if such structural difference exists, does

Art Unit: 1794

the recitation serve to limit the claim. If the prior art structure is capable of performing the intended use, then it meets the claim.

47. It is the examiner's position that the preamble does not state any distinct definition of any of the claimed invention's limitations and further that the purpose or intended use, i.e. a composite used in a shoe or roll member, recited in the present claims does not result in a structural difference between the presently claimed invention and the prior art and further that the prior art structure which is a composite identical to that set forth in the present claims is capable of performing the recited purpose or intended use.

Claim Rejections - 35 USC § 112

48. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

49. Claims 1-20 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

50. Claim 1 recites a "non-urethane thermoplastic resin (Ib) or (IIb)." The claims as amended no longer describe the resin (IIb), therefore leaving the scope of the claim unclear. The examiner suggests Applicant removes any mention of (IIb) from the claims.

51. Claim 7 recites thermoplastic resin (Ib) comprises a polyamide resin having a ratio of alicyclic monomers to other monomers. It is unclear whether this polymer refers to the "polyamide component having an alicyclic ring" of claim 1, or whether this limitation also applies for the "amino group-containing compound" in claim 1.

52. Claim 20 recites "the polyamide component having an alicyclic ring comprises an alicyclic polyamide component.....and a non-alicyclic polyamide component.". It is not clear how a polyamide having an alicyclic ring comprises a non-alicyclic polyamide.

Art Unit: 1794

Response to Arguments

53. Applicant's arguments with respect to claims have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

54. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to John Freeman whose telephone number is (571)270-3469. The examiner can normally be reached on Monday-Friday 7:30-5:00PM EST (First Friday off).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Callie Shosho can be reached on (571)272-1123. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

John Freeman
Examiner
Art Unit 1794

/John Freeman/
Examiner, Art Unit 1794

/Callie E. Shosho/
Supervisory Patent Examiner, Art Unit 1794